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ABSTRACT

This student manual, the second in a set of 14 modules, is designed to train emergency medical technicians (EMTs) in Ohio. The module contains five sections that cover the following course content: ambulance equipment, safe driving practices for emergency vehicle drivers, legal aspects of the EMT's job, how to maintain control at an accident scene or other emergency situation, and how to set up an action evaluation conference to study the work of personnel at emergency scenes. Each section contains objectives, an introduction, and information text. The text is illustrated with line drawings and photographs. (KC)

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EMERGENCY VICTIM CARE

ED239055

Module 2

—Equipment
—Safe Driving Practices
—Legal Aspects
—Controlling the Situation
—Action Evaluation
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Revised 1983

This text is intended for use as a learning aid and to excite your curiosity and eagerness to serve patients. This text is not exhaustive and the opinions and directory comments will change from time to time as new procedures and laws become effective.

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EMERGENCY VICTIM CARE

A TRAINING MANUAL FOR EMERGENCY MEDICAL TECHNICIANS

OHIO TRADE AND INDUSTRIAL EDUCATION SERVICE

DIVISION OF VOCATIONAL EDUCATION
STATE DEPARTMENT OF EDUCATION
COLUMBUS, OHIO

TO THE LEARNER

The 1983 Emergency Victim Care textbook revision has been grouped into 14 modules. The modules have been grouped by content matter as follows:

Module 1

Preface
Foreword
Acknowledgment
Student-Instructor Relationship

Personnel
Emergency Medical Service Vehicles
EMS Communication
Records and Reports

Module 2

Equipment
Safe Driving Practices
Legal Aspects
Controlling the Situation
Action Evaluation Conference

Module 3

Anatomy & Physiology

Module 4

Vital Signs
Patient Assessment

Module 5

Cardiopulmonary Resuscitation (CPR)

Module 6

Bleeding Control
Wounds and Bandaging
Shock

Module 7

Medical Emergencies

Module 8

Crisis Intervention
Drug-Related Problems

Module 9

Backboards/Moving and Handling the Victim
Fractures
Dislocations

Module 10

Injuries of the Eye, Ear, Nose, Abdomen, C.N.S. and Genitalia
Burns and Environmental Injuries

Module 11

Childbirth
Pediatric Emergency

Module 12

Water Accidents
Electrical Emergencies
Hazardous Materials and Radiation Accidents

Module 13

Extrication from Automobiles

Module 14

Appendix I: Communicating with Deaf and Hearing Impaired Patients
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MODULE 2

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EQUIPMENT

OBJECTIVES

Upon completion of the following chapter, you will be able to:
—describe the equipment and supplies carried on the emergency medical vehicle.

Following instruction you will be able to:
—describe the general use for emergency medical service equipment and supplies as specified for the EMS vehicle.

INTRODUCTION

When a life-threatening emergency occurs, it is essential that all necessary equipment be available to provide proper emergency care at the scene while moving a victim to or from the vehicle, and en route to the hospital.

The equipment must be maintained in operable condition at all times, and personnel assigned to the vehicle must be thoroughly trained in the use of this equipment.

NOTE: According to the American College of Surgeons, Committee of Trauma, the following equipment must be carried on the emergency medical service vehicle.

Additional items pertinent to local geographic or industrial hazards should be carried.

RESUSCITATION AND OXYGEN ADMINISTRATION EQUIPMENT

ARTIFICIAL VENTILATION DEVICES

A hand-operated bag-mask ventilation unit with adult, child and infant-size masks is essential. Clear masks are preferred. The unit must be capable of accepting an oxygen supply and should be easy to clean and decontaminate. See Figure 1.

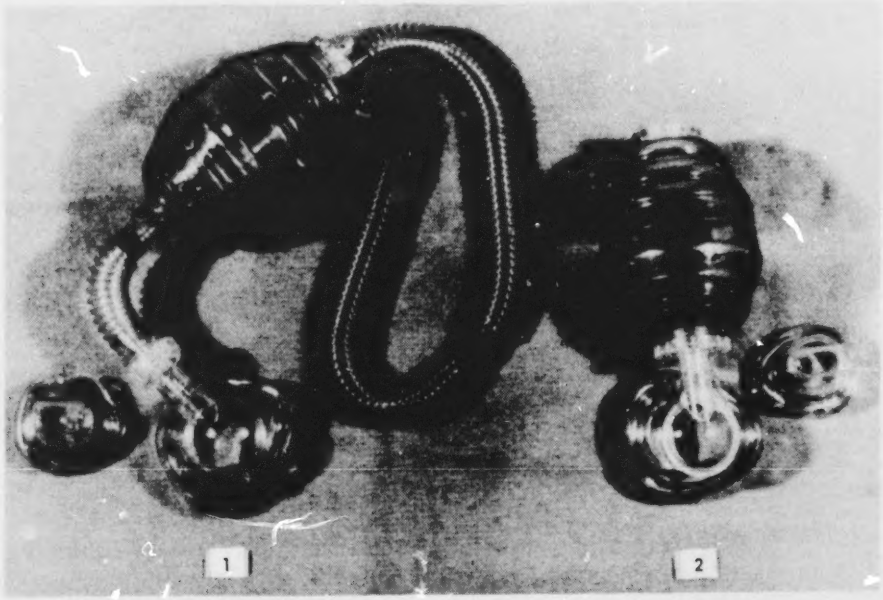
Oxygen-powered, manually triggered devices are acceptable if they meet specific requirements. In a recent medical evaluation, the following advantages were cited: (1) simplicity, (2) delivery of 100 percent oxygen, (3) two hands can be used to maintain a mask fit, (4) high flow rates permitting adequate ventilation in spite of mask leaks, (5) eliminates personal contact with the victim. The principal disadvantages are a lack of availability and dependence on compressed oxygen as a source, lack of feel for compliance of lungs and increased risk of causing gastric distention (except when used with EOA). See Figure 2.

Oropharyngeal airways for adults, children, and infants should be provided. See Figure 3. S-shaped breathing tubes should be carried in sizes shown in Figure 4-(1).

Mouth gags or padded-taped tongue blades also should be provided to prevent tongue injury during convulsions. See Figure 5.

OXYGEN INHALATION EQUIPMENT

There should be two oxygen supplies, one built-in and the other portable.



(1) Hand-operated bag-mask unit with oxygen reservoir

(2) Hand-operated bag-mask unit

Figure 1. The bag mask resuscitator

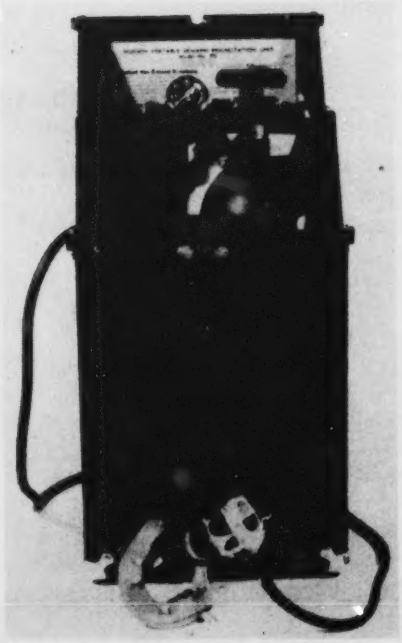
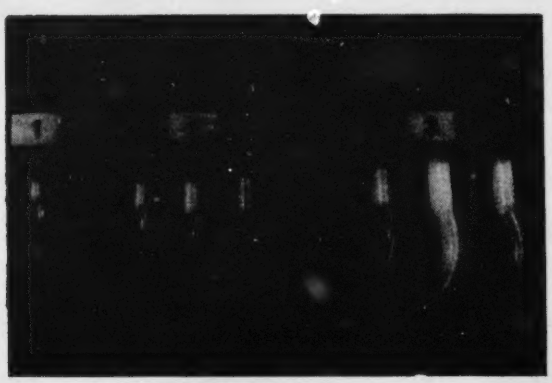


Figure 2. The demand valve resuscitator

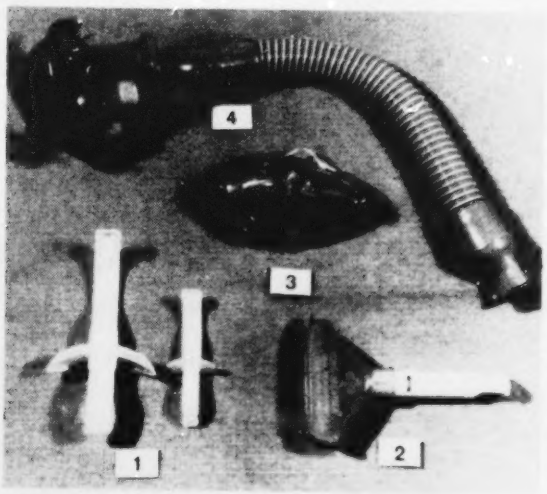


(1) Infant size

(2) Children's sizes, small-medium-large

(3) Adult sizes, small-medium-large

Figure 3. Oropharyngeal airways



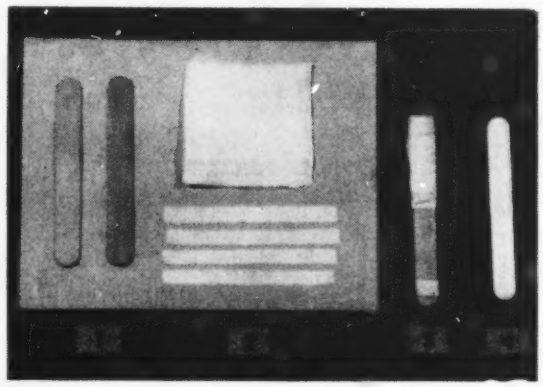
(1) S-shaped breathing tubes

(2) Venti-breather — with one way valve

(3) Tube to mask — direct breathing

(4) Mouth to mask — with exhalation valve from the victim away from rescuer

Figure 4. Mouth-to mouth resuscitation adjuncts



(1)-(2) Material necessary to make a padded-tongue blade

(3) The completed padded-tongue blade

(4) A commercial plastic tongue blade

Figure 5. Padded-tongue blades to be used as mouth gags for the epileptic and convulsing victim

The portable unit of 300-liter capacity (one "D" tank) equipped with a yoke, pressure gauge, flowmeter, delivery tube, and mask; and it should be capable of delivering at least 10 liters per minute. An extra "D" tank should be available. Oxygen masks should be semi-open, valveless, transparent, disposable, and in sizes for adults, children and infants. See Figure 6.

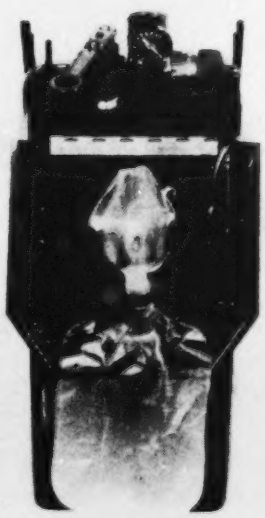


Figure 6. Portable oxygen inhalation unit; with a semi-open, transparent, disposable face mask

ESOPHAGEAL AIRWAYS

The Esophageal Obturator Airway (EOA) is a quick and effective means of establishing an airway while preventing vomiting and gastric aspiration.

The EOA (See Figure 7) consists of mask and deadened breathing tube with an inflatable cuff at its distal, blocked end and 16 "air holes" near its proximal, mask end. The mask includes a standard 15mm fitting which allows connection to all resuscitation bags and oxygen-pow-

ered ventilators. Any of these methods can be used to effectively ventilate via the EOA.

In the past, the EOA has been used safely by doctors, nurses, therapists, but most importantly, by emergency care personnel in the field. It has proven to be a quick and effective means of establishing an airway while preventing vomiting and gastric aspiration during CPR.

Recently introduced is a modified EOA known as the Esophageal Gastric Tube Airway (EGTA). See Figure 8. The objective of the new airway is to isolate the esophagus from the natural airway, thus preventing aspiration of gastric contents. However, rather than blocking the end of the tube as in the EOA, the EGTA goes one step further. It allows the passage of a gastric tube through the esophageal tube and into the stomach. If vomiting should occur, the sump tube will drain the stomach, relieve gastric pressure and prevent the dangerous complication of esophageal rupture. This tube then can be placed in a plastic drain bag or attached to intermittent suction as required.

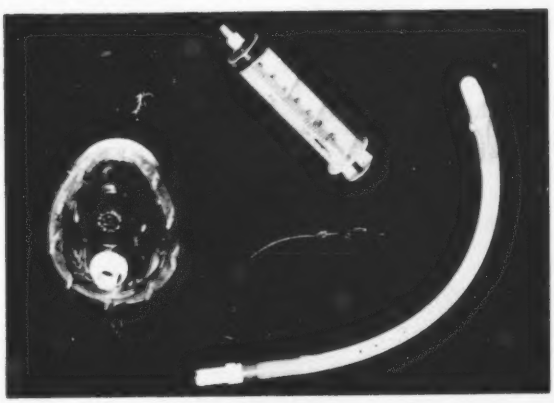


Figure 7. Esophageal Obturator Airway

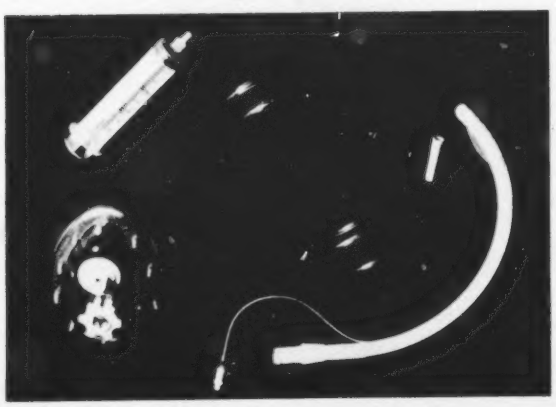
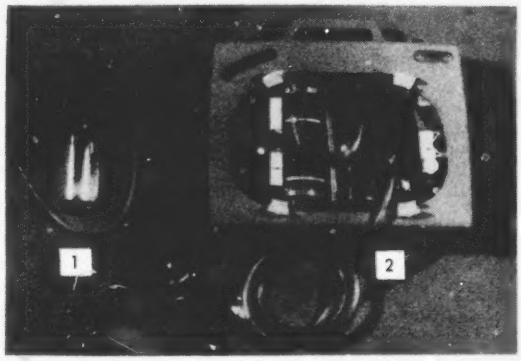


Figure 8. Esophageal Gastric Tube Airway

Another change in the EGTA, the removal of the proximal air holes, was necessary to accommodate the gastric sump tube. These holes were replaced by a new method of ventilation. Rather than have air enter the trachea through the air holes (EOA), it enters the lungs via the nose and mouth. This is done through a second 15mm port located at the nose end of the mask.

SUCTION EQUIPMENT

Portable and built-in suction equipment must be available. It should be fitted with a large-bore, non-kinking tubing and a rigid suction tip. It should provide adequate vacuum and flow to suction an upper airway. All suction equipment should be readily accessible to the EMT, and the tube should reach the victim regardless of the victim's position. This equipment must be cleaned and decontaminated. See Figure 9.



(1) Hand-operated bulb-type aspirator
(2) Battery powered-portable aspirator

Figure 9. Suction equipment

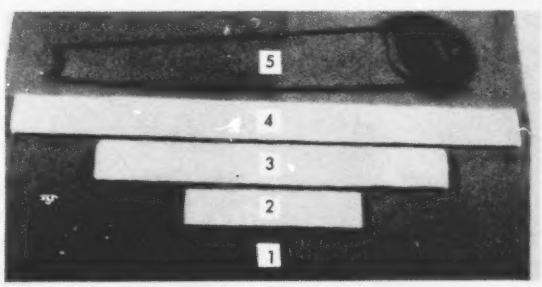
FRACTURE EQUIPMENT

The following must be carried for proper immobilization of known or suspected fractures.

—A hinged half-ring splint with a minimum ring size of nine inches and minimum length of 43″; a padded ankle hitch and traction strap. See Figure 10 (5).

—Padded board splints of material comparable to 4-ply wood in widths of three inches and lengths of 15″, 36″, and 54″; uncomplicated inflatable plastic splints. See Figures 10 and 11. (Splints made of cardboard, plastic, wire ladder, or slatted canvas lace-on may be carried in place of the 36″ and 15″ boards.) Local experience will dictate the number to be carried. However, there must be at least two of each size.

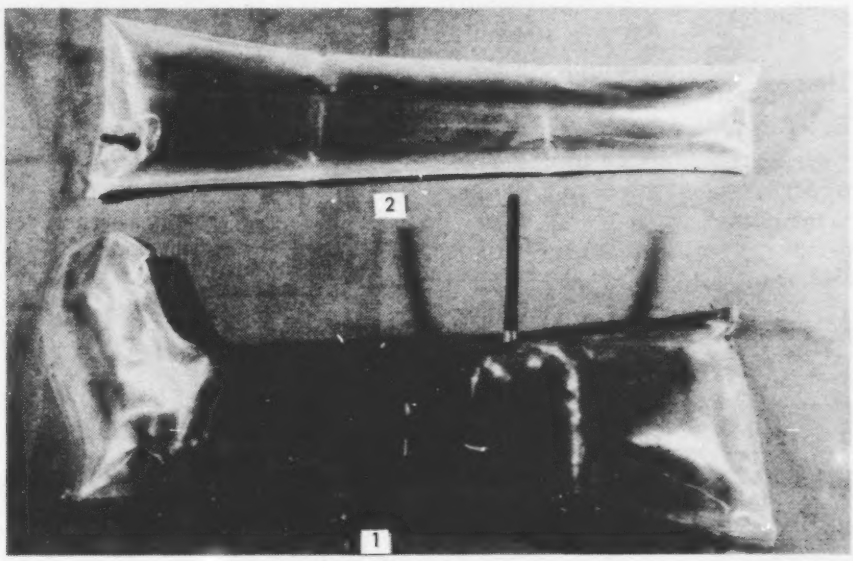
—Triangular bandages with large safety pins for fractures of the shoulder and upper arm for securing splints. See Figure 12.



(1) The wire ladder splint
(2) Board splint — padded — 3″ x 15″
(3) Board splint — padded — 3″ x 36″
(4) Board splint — padded — 3″ x 54″
(5) Hinged half-ring splint

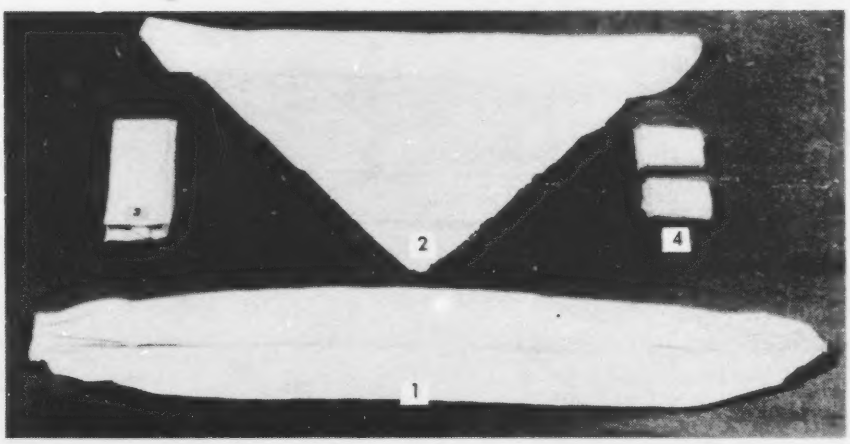
Figure 10. Splinting equipment for proper immobilization of fractures

Short and long backboards and straps for extrication and immobilization of known and suspected spinal injuries. See Figures 13 and 14b.



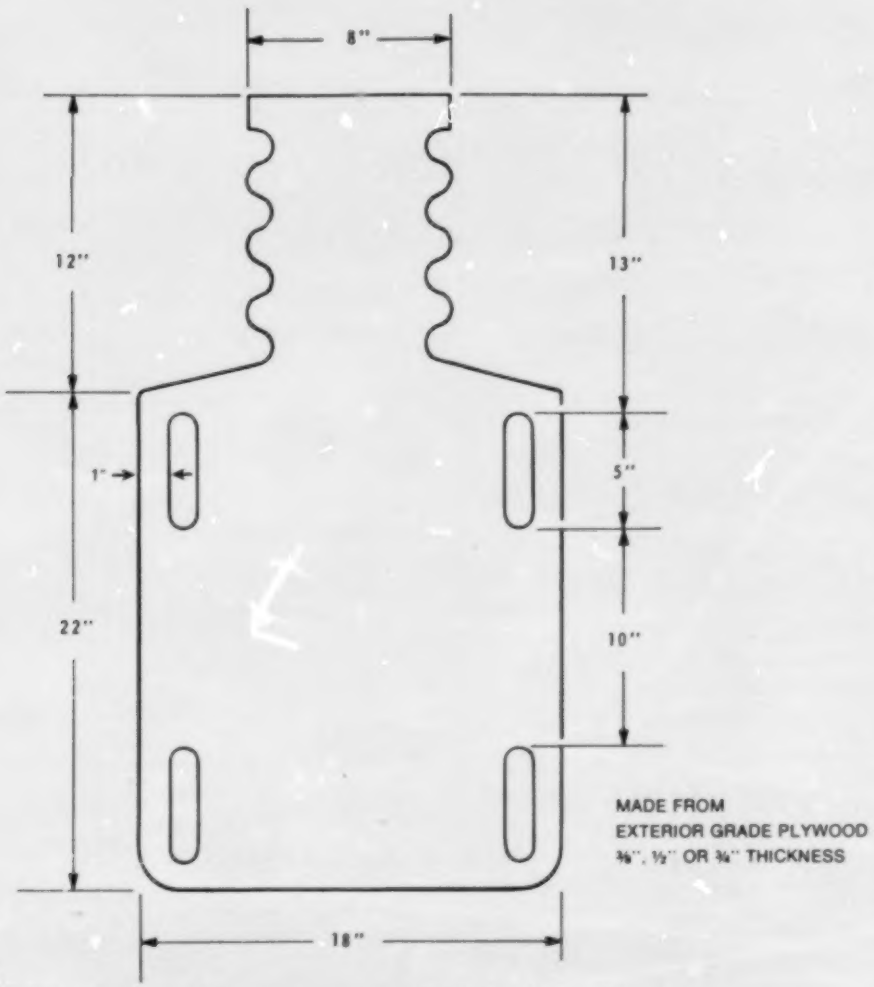
(1) The full leg splint
(2) The full arm splint

Figure 11. Inflatable Plastic Splints



(1) Medium folded cravat
(2) Unfolded triangular
(3) Folded narrow cravat with large safety pins
(4) Rolled cravats for storage with large safety pins

Figure 12. Triangular and cravat bandages



Equipment for proper use of short backboard

2-9 foot straps with fasteners
1- headband - 42 inches (cravat bandage can be used as substitute)
1- Neck roll - 32 inch strap with foam rubber roll 8 inches wide and 6 inches in diameter fasten at the middle of the strap (a heavy folded towel can be used as a substitute)

NOTE
The chin strap has been removed as a part of the fixation equipment for the short backboard. A victim may be adequately fixed to such a board without the use of the strap, and should the victim vomit, aspiration becomes less of a problem.

Figure 13. Short backboard

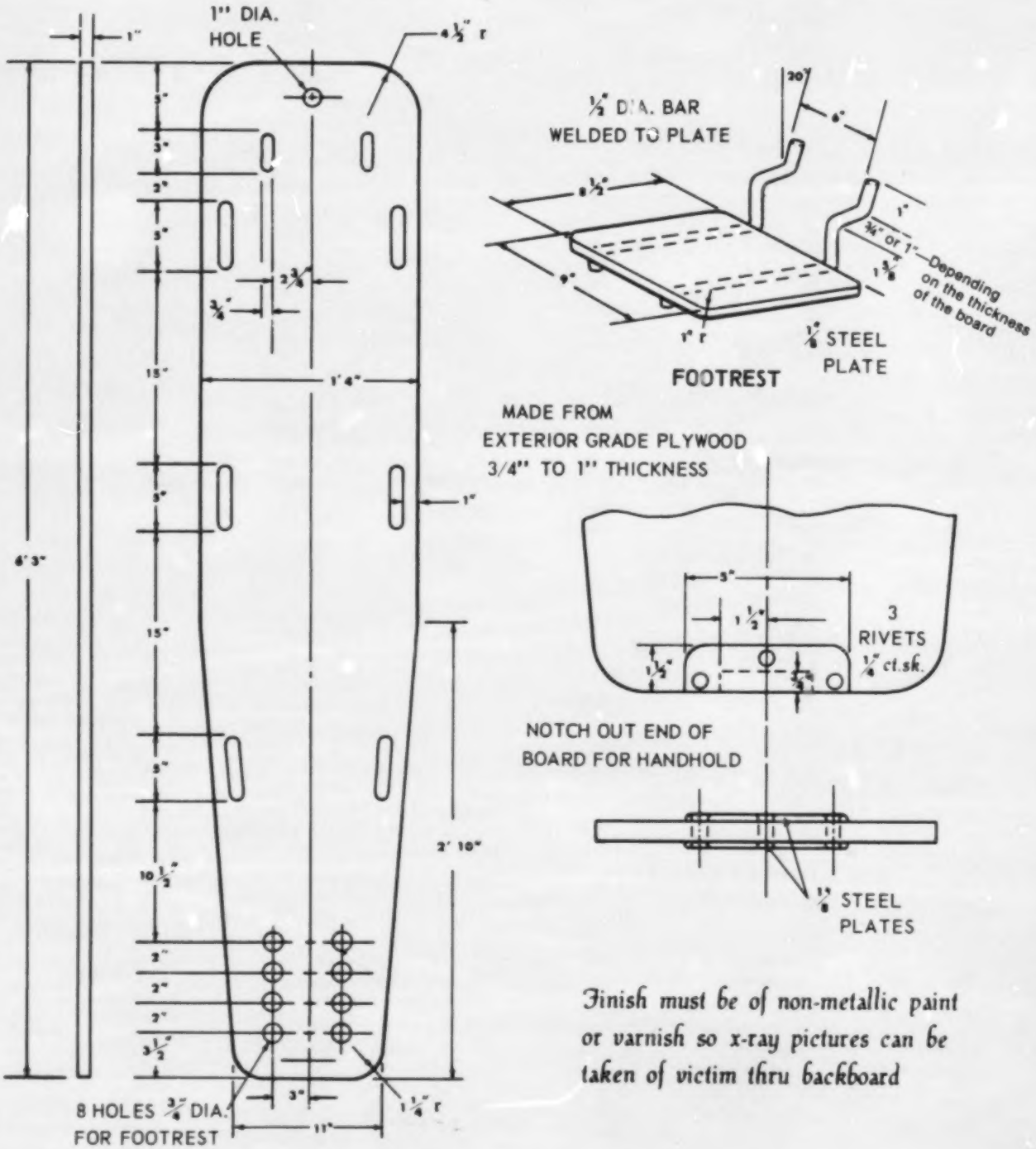
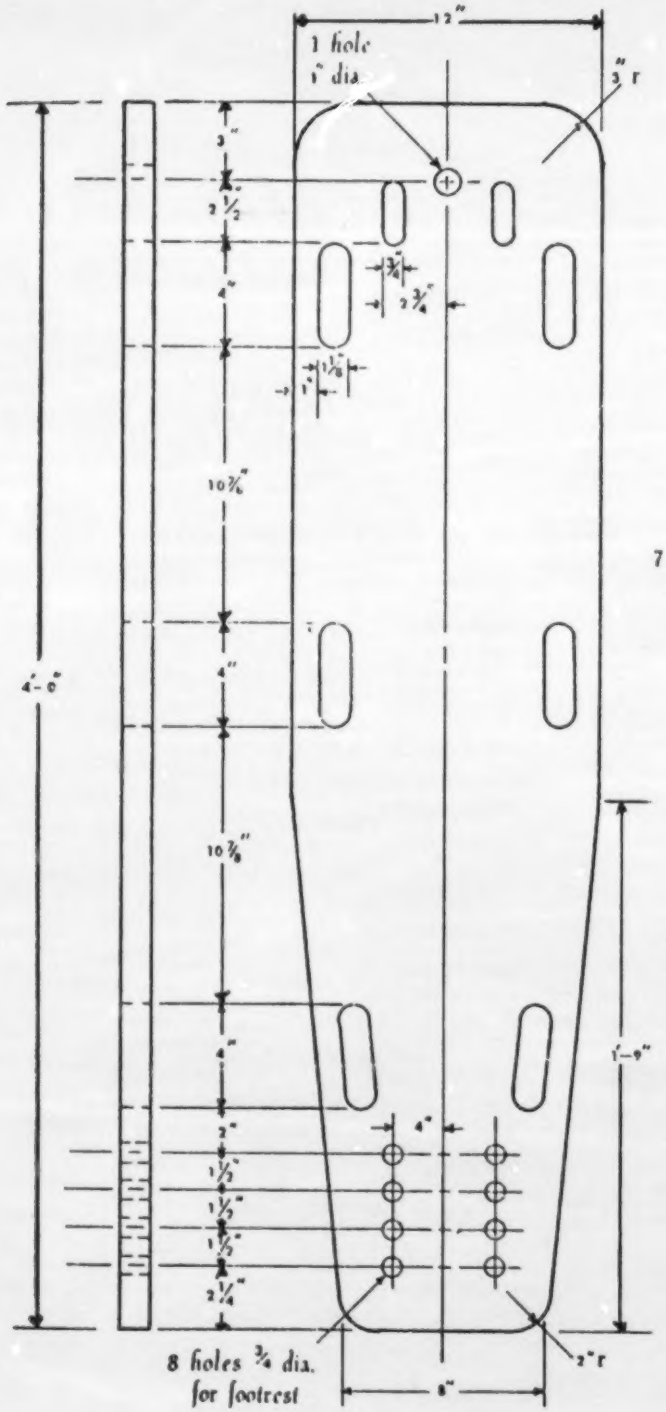
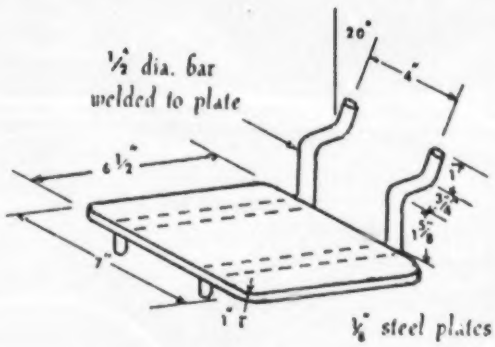
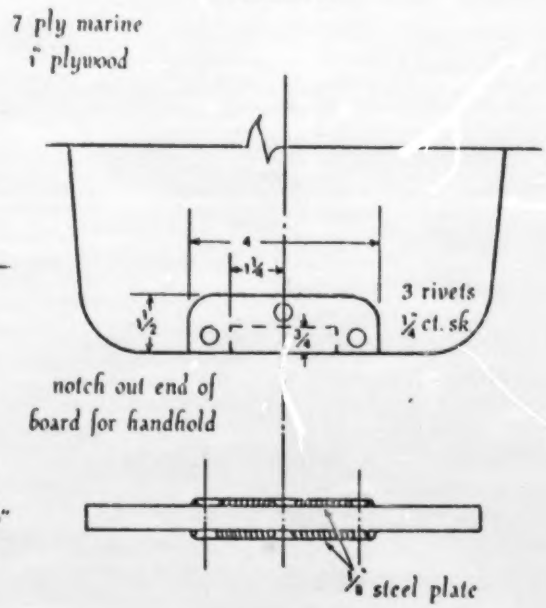


Figure 14a. Long backboard





Footrest



Finish must be of non-metallic paint or varnish so x-ray pictures can be taken of victim thru backboard.

Figure 14b. Child backboard

DRESSINGS AND BANDAGES

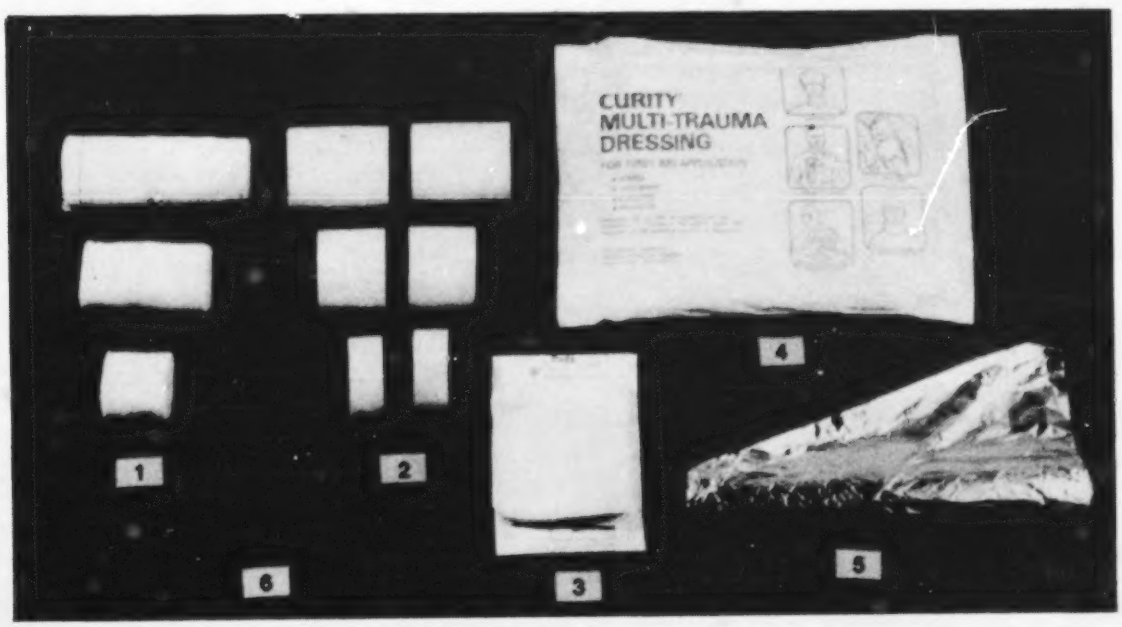
The following are to be carried in the vehicle for dressing open wounds and for padding and applying splints. See Figure 15.

—Sterile gauze pads, 4″ x 4″; soft roller self-adhering type bandages, 6″ x 5 yards required; additional assorted widths may be carried.

—Nonporous dressings for covering sucking chest wounds can be made from aluminum foil. Carry a roll 18″ x 25′ foil, sterilized and wrapped.

—Universal dressing approximately 10″ x 36″, folded and packaged in conveneint sizes for covering large wounds, burns, pressure dressings, padding of splints, or to improvise a cervical collar. (The universal dressing is available commercially but can easily be made by cutting bolts of standard "A.B.D." material into 36″ lengths, folding from each end to the center three times, and packaging each in a paper bag, the end of which is sealed by stapling. Sterilize and place in a pastic bag.)

—Adhesive tape, at least two rolls of 3″ wide tape is required. Additional widths may be carried at local option.



(1) Soft roller self-adhering type bandages in widths of 2″-4″-6″
(2) Adhesive tapes — widths of 1″-2″-3″
(3) Sterile gauze pads — 4″ x 4″
(4) Universal dressing
(5) Aluminum foil — for nonporous dressings
(6) Bandage shears

Figure 15. Dressings and bandages

PREVENTION AND TREATMENT OF SHOCK

ANTI-SHOCK TROUSERS

Anti-shock trousers is a new device used for the rapid control and/or temporary reversal of shock. See Figure 16. Compartmentalized pneumatic trousers with the appropriate inflation equipment will allow the EMT to manage massive hemorrhaging in the abdomen and of the lower extremities. The trousers effectively shunt blood from the area below the diaphragm to the heart, lungs and brain. The trousers also keep EMTs from using invasive techniques considered illegal for EMTs.

The monitoring of blood pressure is essential if the victim is to be treated properly.

Note: Intravenous fluids and administration sets are removed from the EMT essential equipment list because their use required invasive techniques not normally allowed by the EMT. They are still recommended for use by the advanced EMT and will be included in the advanced training.

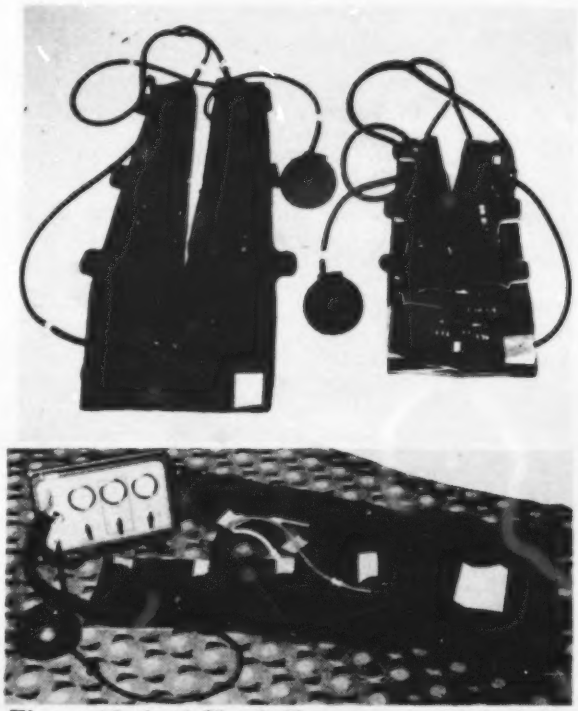
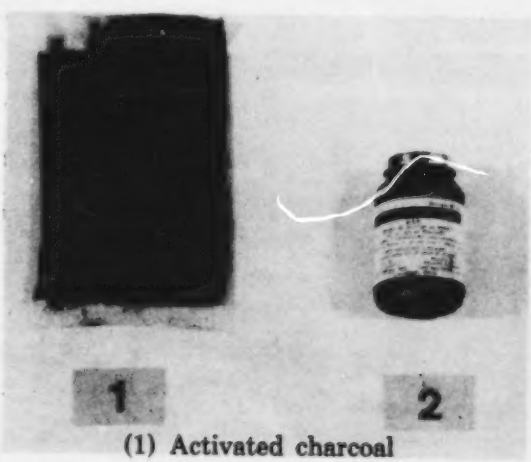


Figure 16. Anti-Shock Trousers — Adult & Pediatric

POISON KITS

Knowledgeable persons in the field of poison control recommend that only **syrup of ipecac** and **activated charcoal** make up the contents of a poison kit. See Figure 17.

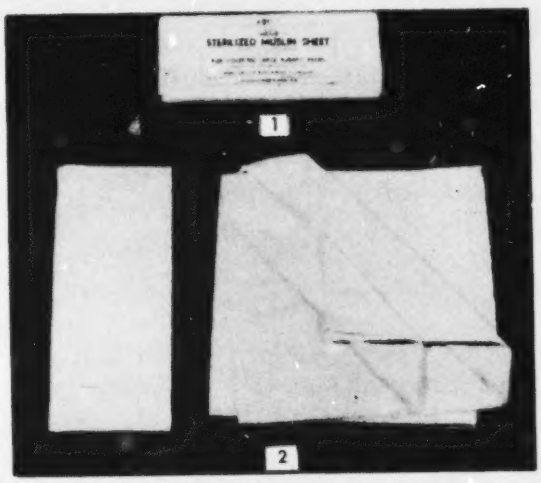


(1) Activated charcoal
(2) Syrup of Ipecac

Figure 17. Poison kit

BURN KITS

Commercial burn sheets are available. However, ordinary bed sheets, wrapped, sterilized, and packaged in plastic bags, provide excellent dressings for burns of any size and body location. See Figure 18.

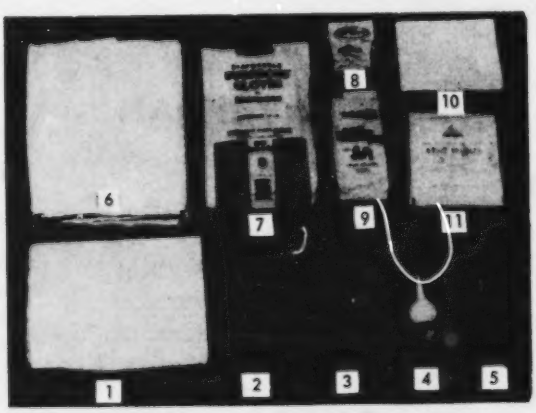


(1) Commercial sterile pack burn sheet
(2) Ordinary bed sheets — folded and sterilized serve as excellent burn sheets

Figure 18. Burn kit

STERILE OBSTETRICAL KIT

The O.B. kit should contain as a minimum: sterile gloves, scissors, umbilical cord clamps or tapes, sterile dressings, towels and plastic bags. Satisfactory sterile disposable kits are available commercially. See Figure 19.



Each service should have available, from hospitals or other sources, a portable incubator that can be secured to the ambulance cot or stretcher for transporting a premature infant. The incubator should permit oxygen enrichment, humidification, temperature control, and access to the infant's head for resuscitation.

(1) Receiving blanket
(2) Cord clamps
(3) Cord ties
(4) Rubber syringe for aspiration
(5) Sterile scissors
(6) Disposable sheets
(7) Sterile rubber gloves
(8) Towelettes for wiping hands of squadperson
(9) Sanitary napkin
(10) Disposable towels
(11) Gauze pads

Figure 19. Disposable obstetrical kit

B/P CUFF-STETHOSCOPE

Shown in Figure 20 are the anaeroid sphygmomanometer (B/P cuff) and the stethoscope, used for checking the blood pressure of a victim.

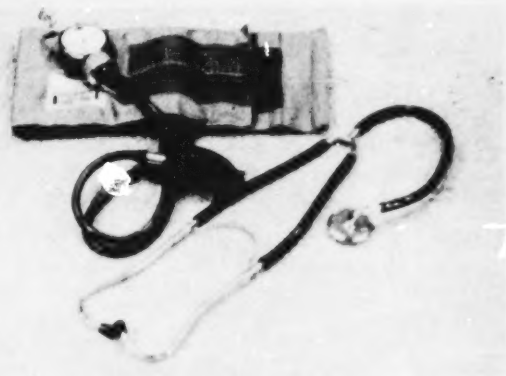


Figure 20. B/P cuff and stethoscope

STRETCHERS AND COTS

Each vehicle should be equipped with (1) a wheeled ambulance cot, (2) a folding stretcher, (3) a collapsible "stair chair." Items (2) and (3) may be combined as one folding unit that can be adjusted to either a stretcher or a stair chair. The head of the stretcher or cot must be capable of tilting upward for transport of a victim in the semi-sitting position, and capable of some downward tilt of its entire length (for fluid drainage).

The frame or handles of the stretcher should be designed to permit up to four persons to carry the stretcher and should provide for fasteners to secure it firmly to the floor or side of the vehicle during transport.

Necessary sheets, pillows, and blankets should be carried in the vehicle and, ideally, an exchange system for such items should be available at local hospitals.

SPECIAL EQUIPMENT FOR USE BY PHYSICIAN OR OTHERS TRAINED IN ITS USE

Special equipment should be carried in the vehicle for use by a physician or others trained in its use. This equipment should be stored in sealed containers. Depending on local conditions, equipment used may include tracheal intubation kit, pleural (lung sac) decompression set, intravenous fluids and administration sets, drug injection kit, venous cut-down kit, tracheostomy kit, urinary catheters and portable cardioscope and defibrillator.

LIGHT RESCUE EQUIPMENT FOR AMBULANCE

Many times a victim can be rescued or released from entrapment with the use of light equipment. In those cases where heavier rescue equipment must be summoned, the EMT can gain access to maintain life support until the heavier equipment arrives and provides total extrication. Remember, the time element in life-threatening emergencies is so critical that, if the EMT must await the arrival of such equipment, lives that could be saved will be lost.

Rescue equipment carried in the ambulance should include:

One wrench, 12 inches, with adjustable open end

One screwdriver, 12 inches, with regular blade

One screwdriver, 12 inches, Phillips type

One hacksaw with 12 wire (carbide) blades

One pliers, 10-inch vise-grip

One 5-pound hammer with 15-inch handle

One fire axe butt with 24-inch handle

One 24-inch wrecking bar or huxbar

One crowbar, 51 inches, with pinch point

One bolt cutter

One portable power jack and spreader tool

One shovel, 49 inches, with pointed blade

One double-action tin snip, minimum, of 8 inches

Two manila ropes, each 50 feet long and ¾ of an inch in diameter

15-foot rated chain with one grab hook and one running hook

COMMUNICATIONS EQUIPMENT

Equipment for communication by two-way radio is required for direct voice dispatching routing, notification of hospital emergency departments, direction and assistance from physicians, and cross-communication with fire, police, and other ambulance vehicles.

Portable radios may be provided for communication between EMTs working at a distance from the vehicle.

SAFETY EQUIPMENT

Directing and controlling conditions that would interfere with the EMT's effort to isolate areas, administer care and remove victims from hazardous situations requires the proper safety equipment.

This equipment should include flares, reflectors, and flashlights; at least one 5# dry chemical "B-C" fire extinguisher; built-in and portable voice amplification devices; self-contained breathing apparatus as determined by local hazards; hard hat and safety goggles; and disposable gloves for use in moving body parts or a deteriorated corpse.

SAFE DRIVING PRACTICES

OBJECTIVES

Upon completion of the following chapter, you will be able to:

—describe the responsibilities of the driver operating an emergency medical vehicle.

Following instructions and/or practice you will be able to:

—transport an emergency victim safely to a receiving medical facility.

—cite emergency situations when it is necessary to use the emergency lights and the siren (while transporting a victim).

—cite emergency runs when it is not necessary to use the emergency lights and the siren (while transporting a victim).

INTRODUCTION

Many drivers possess a natural inclination to drive at excessive speeds. Sound thinking should tell us it is better to drive slower and arrive safely at a given destination, than not to arrive there at all.

When dealing with the problem of "safe speeds" vs. "excessive speeds," many factors must be taken into consideration, such as: (1) the driver's physical and mental abilities; (2) the condition and type of motor vehicle used; (3) the weather; (4) the road condition; (5) traffic conditions. The overriding consideration must be to arrive **safely** at your destination!

It can be said that a speed considered to be a safe speed for one driver may be an excessive speed for another. Inexperienced and excitable drivers often become overzealous, a characteristic which will cause them to drive at unreasonable and unsafe speeds. Warning lights and sirens are used to permit the emergency ambulance to travel at a constant speed with the flow of traffic.

RESPONDING TO THE EMERGENCY

DRIVER'S RESPONSIBILITY

The driver of an emergency medical vehicle is responsible for the safe operation of that vehicle; therefore, it is necessary for the driver to understand the limitations involving the use of red warning lights and sirens mounted on the emergency equipment.

RED LIGHT

The flashing red light is of more value as a warning device to oncoming traffic than it is when used to alert drivers of vehicles being approached from the rear. When no visual obstruction exists, a red flasherlight mounted on the emergency unit is often more effective than a siren as a warning device, because it can attract the attention of oncoming drivers from a greater distance. A small red light is ineffective.

SIREN

The siren is an excellent warning device, but

it too has limitations caused by high noise levels, closed automobile windows, and the fact that sound waves created by a vehicle-mounted siren are directional. In certain instances, test results proved that the sounds could be heard approximately three times as far to the front as was possible to either side or to the rear. When ideal conditions prevail, a person with normal hearing, seated in an automobile with only the driver's window open, will hear the siren at a position approximately 1,000 feet to the front of the emergency vehicle. This distance, of course, is subject to changes due to the variation of street noises from trucks, buses, and other sound-producing obstacles. However, the approximate distance that the sound waves of a siren may be heard is reduced roughly by two-thirds when the listener's position is at right angles to the path of the emergency vehicle.

There are also some techniques and precautions which, if observed, will result in a more effective use of the siren and reduce the danger of accidents to emergency vehicles.

When the siren is not automatically controlled it should be turned on and off alternately in such a manner as to utilize the full range of sound from the lowest to the highest pitch. The varying sound pitch will attract attention more effectively. Many persons are deaf to high or low pitches but can hear other tones adequately.

In some states totally deaf persons are issued driver's licenses. This is true in Ohio.

DRIVING AN EMERGENCY MEDICAL VEHICLE

The driver of any emergency medical vehicle cannot depend on the flashing of the red light or the sound from a siren on the vehicle to guarantee safe passage or "right of way" through any intersecting street or crossroads. There is a greater danger of accidents at intersections where traffic control lights are in operation than at intersections with "Stop" or "Yield Right of Way" signs, or where intersections have no controls at all.

The public has a right to expect the emergency siren/flashing lights to be used only when a **genuine emergency exists.** The use of the siren for escorts of distinguished persons, caravans, parades, and other non-emergency uses can lead to resentment and eventual disregard. These practices are becoming less prevalent. They not only should be discouraged but prohibited.

To gain the "right of way" over other vehicles traveling in the same direction, a siren should be actuated sufficiently in advance before overtaking the vehicle so that the driver will have had adequate warning of the approach. The sudden use of a siren immediately behind another vehicle may cause an excited motorist to stop or swerve abruptly, striking the emergency medical vehicle or other automobiles or pedestrians.

When an emergency medical vehicle is preparing to pass another vehicle, it must be done with caution, especially when it is necessary to drive across the center line of the roadway. In such cases, the alerted motorist should yield the right of way and immediately drive to a position parallel to, and as close as possible to, the right edge or curb of the highway clear of any intersection. The motorist then should stop and remain in this position until the public safety vehicle has passed (except when otherwise directed by a police officer). Such results cannot be expected from all motorists in all situations; therefore, the safety of these people rests in the hands of the emergency unit driver.

No emergency medical vehicle should pass another emergency vehicle while responding to an alarm except when an "all clear" signal has been received from the driver or the officer in charge of the first vehicle, and then, only when it is safe to proceed in the judgment of the second vehicle's driver. A safe distance of 500 feet should be maintained between public safety vehicles when two or more units are responding together to the same emergency.

The careful selection of sound thinking and intelligent drivers, properly trained, will help

solve this problem; however, it is essential that all drivers understand speed in relation to "reaction distance," "braking distance," and "stopping distance," explained herein:

Speed—The miles per hour a vehicle travels.

Reaction Distance—The distance a vehicle will travel while the driver's foot is transferred from the accelerator to the brake pedal after perceiving danger.

Braking Distance—The distance a vehicle will travel from the place where the first application of the brake was made to the place where the vehicle stopped.

Stopping Distance—The sum of the reaction distance plus the braking distance.

These distances will vary with the physical and mental alertness of the driver; the speed, type and condition of the vehicle; the number, type and condition of the brakes; the tire sizes; and the weight of the vehicle when fully equipped, plus the type and condition of the road surface.

For example, at 40 m.p.h. a vehicle is traveling approximately 59 feet per second. This requires a distance of 44 feet (reaction distance) for the average driver to react and apply the brakes. In most cases the vehicle will have traveled an additional 88 feet (braking distance) before it stops. This adds up to a total of 132 feet (stopping distance) which is the approximate total number of feet required to halt the vehicle. At speeds lower than 40 m.p.h., it is possible to control the apparatus with some degree of safety. With higher speeds, such as 60 m.p.h., the stopping distance increases to an approximate 264 feet.

Drivers should remember they are responsible for the lives of their co-EMTs, the victims, and others.

TRANSPORTING A VICTIM TO THE HOSPITAL

Few, if any, emergencies require the need for excessive road speeds when transporting the victim. Along with this, poor driving practices such as swerving, fast turns, and sudden changes often increase the extent of the injury and create an adverse effect on the victim. This action is improper in all respects.

Another major danger associated with a speeding or carelessly operated squad vehicle is the possibility of being in a traffic accident. Such a situation would cause a delay in assisting those involved in the original emergency, plus the possibility of obtaining more victims and often destroying services for which the emergency vehicle was purchased.

The safe speed for any emergency run must be established while the run is being made, and it must be based on the weather, streets, traffic, the driver, and the victim's condition. Because of the seriousness of a situation, there must be adequate planning and wholehearted cooperation of all persons concerned in order to make any emergency medical service a successful operating unit.

NOTE: The following is a summary of Safe Driving Practices which all EMTs should read carefully and understand fully. (Based upon original material of Wayne Irvin Cowan)

Emergency driving is often the most overlooked area of emergency care in which rescue squads and EMTs are actively involved. The proper driving of an ambulance or rescue vehicle can often make a great deal of difference in the patient's condition between the scene of the mishap and the hospital. Once the initial care is rendered at the scene, the driver of the unit is solely responsible for the safe and rapid transport of the victim without aggravating the injuries the victim has previously sustained. Contrary to popular belief, not everyone is capable of driving an ambulance or rescue vehicle, especially during emergency runs. What does it take to be a good, safe, accomplished driver with any rescue squad or ambulance service?

There are several requirements to look for before turning an expensively equipped ambulance or rescue vehicle loose on the road. Is the driver in reasonably good physical condition? Emergency driving is a strain and the driver must be able to make quick decisions to avoid accidents and still get to the scene as quickly and as **safely** as possible. Is the driver emotionally mature and stable? The driver is responsible for many quick decisions in which the outcome may not only affect the patient but the crew of the responding vehicle. It makes little sense to put a speed demon behind the wheel of an ambulance because of all the unexpected things that can happen on the road. The driver of the unit has the added responsibility of knowing when to use red lights and siren and when not to, as well as driving so as not to be a hazard to other drivers on the road. Is the driver sensitive to the condition of the patient and driving according to the patient's condition? A driver who speeds across the roughest roads in the city or county to take a fracture patient to the hospital will not generally be driving too long—not if there are better drivers available. The driver should drive as if on the stretcher personally, with parents along on the way to the hospital, and brothers and sisters in the other vehicles on the road.

These are qualities that every driver should possess before being put to work driving the vehicle on emergency calls. Once these preliminary questions are answered correctly, the candidate can be properly trained in driving the unit.

There are three basic DO's or MUST's in responding to the initial call:

—the driver **MUST** know where to go and the quickest way to get there safely;

—the driver **MUST** always choose the path of least resistance and avoid areas where traffic jams are common, children are going to and from school, and residential areas (when possible) where young children may be playing in the streets;

—the driver **MUST** position the unit to assure the safety of all EMS personnel and victims.

Once the unit is on the scene, the driver's job is half done. Now the job becomes difficult—how should the patient be transported?

Once the victim(s) is splinted, bandaged, or generally stabilized for transport to the hospital, phase two of the driver's job begins. With many ambulance services and rescue squads, the attending EMT dictates the manner in which the unit is to be returned to the hospital, i.e., with or without lights and siren. Exception to this rule should not be taken, even though the driver is knowledgeable about the extent of the injuries sustained by the victim. The attending EMT is responsible for the well-being of the patient as well as the type of return.

Unfortunately, far too many drivers of ambulances and/or rescue vehicles transport patients in such a manner that the lives of the patient (with a relatively minor injury or illness) and attendant are in danger. Quite often the ride to the hospital is more frightening than the initial injury and this can produce or deepen shock. This limits the available information needed to begin effective treatment of the injury or illness by masking some of the more important signs and symptoms physicians need for prompt diagnosis. Many common injuries are frequently aggravated by the driver on the way to the hospital, such as fractures.

Very few fractures can be classified as true emergencies and therefore do not justify rapid transport to a hospital. Among the most serious fractures are those which involve major arteries — particularly a broken femur near the femoral artery, a broken humerus near the brachial artery, and a broken pelvis near the femoral and the external iliac arteries. The driver must remember that a splint can only reduce movement to a minimum, but it **cannot stop all movement.** Fractures must be treated with Tender Loving Care by the driver to insure a minimum

of damage to soft tissues, arteries, nerves and, in cases of suspected neck and/or back injuries, the spinal cord.

Other types of calls also rely upon smooth careful driving. Cardiac calls in particular need the professional care of a professional driver. Once a cardiac patient is ready for transport, the driver must move the victim to the hospital without increasing the patient's feeling of impending doom. The first basic rule the driver must remember in dealing with cardiac patients is **do not use flashing lights and siren.** Of course there are exceptions to this rule, but common sense should prevail. It is easier to calm a cardiac patient if the ride is smooth and calm. A rough ride may cause the patient to feel worse than is actually the case. In cases of a full cardiac arrest, speed can make the difference in a D.O.A. and a viable patient being brought into the emergency department. **However, it must be remembered that the EMT that is caring for this victim cannot do work if the patient is being thrown around the back of the vehicle.**

Good driving can make a difference in many other types of calls besides those already mentioned. Many psychiatric patients feel more secure in a vehicle driven without emergency lights and siren than in a speeding ambulance rocking from side to side with the siren blowing. If the patient is liable to be disturbed by the lights and siren, **do not use them unless unavoidable.**

Any patient with uncontrollable bleeding is a rush case. Uncontrolled nasal bleeding may jeopardize the patient's airway and put the patient in serious trouble very quickly. Usually, steps can be taken to stop or at least slow external bleeding from an injured extremity with little or no trouble, but the worst must always be expected. A patient can be killed by severe internal hemorrhaging before being transported to a hospital if acute abdomen from blunt trauma is not recognized by the EMTs. Bleeding controlled by pressure dressings or pressure points may be transported at routine speeds providing the hospital is within reasonable distance of the mishap. Uncontrollable bleeding of any sort is an emergency and must be treated as such.

Generally a patient with acute abdomen caused by diseased internal organs needs smooth transport at safe speeds. This type of patient usually hurts regardless of the type of movement and a rough ride can produce pain great enough to cause the patient to pass out. This patient must be transported as gently as possible.

It should also be noted here that obstetric patients also require gentle transport, though there is usually no emergency involved with childbirth. A smooth ride may possibly prevent the baby from coming early. If the mother begins to deliver the baby on the way to the hospital, the best thing the driver can do is stop and provide help for the attending EMT. Once the event is over, transport the mother and baby to the hospital.

Driving is the most important part of any ambulance service or rescue squad. Without the driver, the unit goes nowhere, no treatment is rendered, no patients are transported, and the whole idea of emergency care at the scene of the accident is only an idea instead of a reality. To do a good job, the driver must remember the basic rules of emergency driving:

—know where you are going;

—choose the quickest, most direct way to the scene;

—position unit carefully and correctly;

—know the victim's injuries and drive accordingly, and

—use the smoothest, most direct route to the hospital.

By following these basic common sense rules, the driver can earn the respect of co-workers. Through these efforts, the driver can bring the overlooked portion of emergency care into focus.

LEGAL ASPECTS

OBJECTIVES

Upon completion of the following chapter, you will be able to:
—describe the history of emergency medical service in Ohio.
—describe the legal aspects pertaining to the emergency medical service for the state of Ohio.

INTRODUCTION

In order to understand and obtain some appreciation of the legal aspects of emergency medical care, a brief historical review is important.

Prior to the implementation of Ohio Revised Code Sections 4731.82-.92, there were no standards in Ohio regarding any aspect of prehospital emergency care. The divergent persons plying the "trade" of emergency care ranged from "body snatchers" to professional and ethical specialists in emergency medicine. To avoid the tragedies that often happened to victims of sudden accident or illness, a prehospital care system was generated through the insistance and encouragement of concerned, professional people many of whom became EMTs. Most importantly, a series of standards had been developed against which performance of an EMT can be measured.

A HISTORICAL REVIEW

In reviewing Ohio law (O.R.C. 4731.82-.92) essential EMT components are found. The EMT, whether basic, advanced or a paramedic, is the most essential element in prehospital emergency care. EMTs may exercise any or all of their important professional characteristics:

A. The EMT is trained and/or qualified to practice prehospital care in Ohio.
B. The EMT is charged with operation of an ambulance of specified minimum design.
C. The EMT is charged with care of the patient by:
    1. Determining the nature and extent of illness or injury (diagnosis)
    2. Establishing priorities for care (triage)
    3. Rendering emergency medical care
    4. Providing extrication and/or rescue services

In addition, there are specialized services which require approval of a medical advisor(s). The infusion of intravenous solutions and intensive care techniques are these vital services which are necessary in certain circumstances.

The EMT is supplemented with equipment to provide mobile emergency services. Ohio law and The Ohio Emergency Medical Services Advisory Council has established "Service and Technical Ambulance Specifications" for both basic and intensive care ambulances. On November 4, 1979, the final draft of ambulance specifications was approved and adopted by the Council pursuant to O.R.C. 4731.93(C). Note that an ambulance is used to respond to "emergency life-threatening situations." The latter phrase defines ambulance uses and essentially limits "emergency" services to the provision of care to patients prior to that person receiving professional medical care or hospitalization.

It is now required that anytime a vehicle is used as an ambulance, it must be staffed by two EMTs—no exceptions! The intent of the law is to provide stablizing emergency medical

care to patients. Practically speaking, that care *must* be effective and, therefore, EMTs must be available to care for the patient.

Further examination of the law demonstrates the authority of the accrediting bodies (State Department of Education and Board of Regents) to issue standards, certify and recertify EMTs. It is important for the EMT to understand the key to proficiency is the constant requirement for continuing medical education and practical experience. The retention of medical education is short lived. To be effective as a provider of highly specialized EMS skills, the EMT must constantly strive to learn. The test is whether you would want someone of your training and attitude performing emergency medical diagnosis and techniques on you or a member of your family. Obviously, to remain an EMT you must, as a minimum requirement, adequately function as an EMT or have adequate experience.

The law also provides a course of control over problems with unprofessional EMTs or persons illegally representing themselves as EMTs. Of course, there are presently many participants in emergency service systems. For references, contact any of the agencies involved (See Appendix) and certainly coordinate protocol in conjunction with local legal counsel whether Law Director or County Prosecutor.

Perhaps the most misunderstood provision of the ORC is the EMT-advanced and EMT-paramedic authorizations. The statutory scheme is that those techniques be performed pursuant to direct communications with a physician or nurse (designated by a physician). If communications fail or expediency requires it to protect a patient's life, rely on written protocols as authorization to provide intensive care techniques. Medical control of the patient from onset of the emergency is the goal.

There are also legal immunity provisons—read them! The revised code does not say the EMT cannot be sued. It does provide protection to those EMS professionals who provide effective patient care according to their training and experience in relation to the existing emergency circumstances. The law is designed to permit patient care **without** an imminent concern for civil damage actions. Remember, there are now standards to measure performance; therefore, the EMT must have a reason for what action is taken (must be reasonable in your actions), recording each and every detail of basis, definitive care, observations, ontological cause and effect. By protecting yourself, you will better care for the patient. One key is by involving medical staff personnel in the patient care, delivery system by direct communication.

NOTE: Ambulance operators appear to obtain a level of immunity comparable to EMTs, physician, nurses and students. The only practical advice that must be followed regarding vehicle operation is to drive in conformance with the normal traffic rules and regulations. Why? Viable EMTs must arrive at the emergency site and must deliver viable patients to the hospital. Ambulance accidents interrupt that basic operational premise. An important feature of O.R.C. 4731.90(C)(2) implies that the ordinary care requirements of O.R.C. 4511.03 are applicable to ambulances—you must be careful! (See Appendix)

Last, there are prohibitions both civil and criminal for persons (not Good Smaritans) who represent themselves as EMTs and who are not licensed by the State of Ohio. Remember—you are an EMT in Ohio only and your status elsewhere depends upon the law of that state!

YOUR CIVIL RESPONSIBILITY

Emergency medical services are a crucial part of the total health care delivery service. As an independent service and as an EMT one must recognize that there are circumstances which require that primary consideration be given to other agencies, e.g., a homicide site is an important crime scene which must be preserved with acute care. Fire scenes, disasters, traffic mishaps, all require close coordination and cooperation among various professionals, but only

the EMT is in charge of the patient until professional medical care can be obtained.

To understand the functions of an EMT, a basic understanding of the civil law is necessary. Fortunately, in Ohio, very few EMTs have had negative experiences with the legal system, but the potential exists! The law of negligence is a practical system, operated and applied by people. Whenever the issue of negligence is raised, it becomes a fact finding inquiry for a jury. Ultimately, **negligence is what a jury or a judge says it is!** In legal analysis, we are concerned with previous fact patterns, medical prudence and common sense and from all such factors we develop a rationale for analyzing our laws. At this writing, no case has been reported against EMTs which are precedents to be followed in resolving disputes or in guiding our actions.

Civil law establishes the right to function as an EMT. Reciprocally the law looks to the standard of care owed to patients and whether or not that "duty" has been breached. Four elements must exist before an EMT may be found civilly liable in damages.

A. A **duty** must be established from the EMT to the patient. In Ohio there is no duty to provide emergency services to any victim of sudden illness or accident. If patient care is begun, it is the EMT's duty to continue in a reasonable fashion.

B. A **breach** of duty requires an analysis of what behavior on the part of the EMT is alleged to be wrongful. Experts are used to establish the performance expected of an EMT. In Ohio, you must be "wilfull or wanton" to be civilly liable, that is, you must perversely disregard a known risk that your actions or failure to act is likely to cause a certain result. This standard is very broad and if you go beyond wilfull and wanton, it is certainly arguable that your actions are intentional.

C. **Causation** is important because your breach of duty must be the cause of the patient's injury, if not, liability will not attach.

D. **Damage,** the last element is also essential for recovery. A lawsuit must prove actual harm. Damages are designed to compensate the injured person. They are impossible to fix with certainty.

Statutes of limitations are intended to bring to a conclusion every act or omisson. Ohio has a malpractice statute of one (1) year. No case tells us the appropriate statute of limitations for EMTs. It is arguable that the discretion you exercise in determining the nature and extent of illness is a form of diagnosis and therefore a one (1) year standard applies. It is also arguable that a two (2) year statute applies as it does to most negligent acts. After the time has run out, damages cannot be obtained. In addition to the expiration of time you should now have come to understand many other good defensive tools, including:

A. Excellent training, continuing medical education and practical experience.

B. Established communications with your hospital emergency room. Well defined and devised protocols written by various professionals.

C. Excellently detailed dispatch and run reports with routine critiquing.

D. An effective, patient-oriented attitude.

E. Conduct which is reasonable, prudent and effective.

AREAS OF CONCERN

All of our discussions have been relative to statutory guides or rules of law that exist. As is always the case, there are areas which are undefined and we will look at those more as an effective means of becoming a more proficient EMT.

Vehicle liability is an area of extreme concern. O.R.C. 4731.90(C) was passed before Ohio's comparative negligence statute became effective and there are considerable arguments now that there is little effective immunity from liability for an ambulance operation.

Interstate operations are not clearly permitted by Ohio or by our adjoining states. Re-

member that you are an EMT licensed to practice in Ohio only. If you travel across state lines, you are subject to the laws of that jurisdiction which may mean both criminal and civil penalties.

Interhospital operations have only been partially addressed in 4731.82(E) & (F) where it appears that once a patient is hospitalized, "emergency" circumstances as a matter of definition cease.

Communications systems are recommended by the law, but the statute (4731.89 and .891) do not define a direct communication devise.

Lead agency. It is requisite that a unified state-wide systematic approach to EMS be developed. Many agencies are involved in EMS in Ohio and there is little effective coordination. There is no coordination among EMS and the other two important public safety forces—police and fire.

CONCLUSION

The lesson of this chapter is twofold. First, you should understand that the EMT is recognized as a professional and is taught and authorized to provide competent, effective basic or intensive care emergency medical services to the victims of sudden illness or accident. Second, Ohio now has standards which the EMT must maintain or exceed to provide practical, personal protection from civil liability; however, by practicing effective patient care there is little probability that any legal problems will arise.

Practice your profession and be proud of your practice.

CONTROLLING THE SITUATION

OBJECTIVES

Upon completion of the following chapter, you will be able to:

—describe situations that may be encountered by an emergency medical service at the scene of a highway accident.
—describe procedures to deal with the victim, friends and/or relatives at a home situation.
—describe proper procedures to handle operations at a crime scene.
—list special precautions to perform at the scene of a highway accident.
—itemize precautions to be observed at a crime scene.

Following instruction you will be able to:

—demonstrate proper procedures in handling an emergency victim, friends and/or relatives in an emergency situation.

INTRODUCTION

An EMT's first responsibility in any emergency is to the victim. However, since EMTs may be the first, trained personnel to arrive at an emergency, it is sometimes necessary for them, in the absence of other authorities, to do things which are not, strictly speaking, victim care; in order to perform their functions adequately and without endangering their own safety and the safety of others.

HIGHWAY ACCIDENTS

In most situations a victim should receive "on the spot" emergency care before being moved for any purpose. Often immediate assistance to a highway victim is essential before adequate warning devices are set out to alert oncoming traffic. In such instances, the warning lights on the squad vehicles can be used to excellent advantage. They provide some protection to the victim and the EMS personnel. The procedure to follow must be decided by the EMT-in-charge for each individual case. Care must be exercised to prevent the accident from becoming worse or causing another accident. EMTs should not deviate from the "victim care" outlined elsewhere in this text when considering whether to move the victim to a safer area, unless the impending danger creates an additional hazard to the victim or EMTs.

Unless some plan of action is set up, practiced, and understood by EMS personnel, there may be confusion at the scene of a highway emergency. Figure 1 shows efficient, preplanned handling of a highway accident.

FLAGS AND FLARES

Section 4513.28 R. C. of Ohio states that in case of a highway emergency, warning signals shall be placed 40 paces or approximately 100

Figure 1. Cooperation at an accident scene. The victims are cared for by the EMTs while police officers control bystanders and traffic. A firefighter stands ready with charged hose line. Note that one EMT examines a victim on the road and another examines victim in the car. The other EMTs prepare equipment that probably will be needed. Only by good preplanning between EMS officers, firefighters and local police agencies will such effective handling of an accident be possible.

feet both to the front and to the rear of the vehicle.

If the site of the emergency is near a curve, crest of a hill, or place where the vision of oncoming traffic may be obstructed, the warning signals should be placed to give ample warning.

These warning devices must be used with due regard for the common hazards each may present in a particular situation. For example, open flames, lights, or non-vapor-proof lanterns must not be used in an area filled with gasoline or other flammable vapors.

When the job of caring for the victim demands the EMT's entire personal attention, it is then necessary for the EMT-in-charge to direct some other person to set out whatever signaling device is suitable for the existing condition.

CLEAN-UP

EMTs will not usually need to become involved in the clean-up operation at the scene of a highway emergency. However, should the necessity arise, Section 4511.74 of the Ohio Revised Code states, "Any person authorized to remove a wrecked or damaged vehicle—from a highway shall remove any glass or other injurious substance dropped upon the highway from such vehicle."

The above quotation is not to imply that EMS members are responsible for the removal of such substances dropped upon the highway, but rather to point out with whom this responsibility lies. Some of the most common substances found in a clean-up situation are:

Gasoline—This must be flushed from the highway with large quantities of water. Consideration must be given to where the gasoline and water will run and what additional action, if any, is necessary. For example, should the gasoline be flushed to a nearby creek? What are the potential dangers and what lies within its path? When the gasoline is flushed into a sewage disposal plant, the person on duty at the disposal plant should be notified immediately. When it is flushed into a sewage system in a highly populated area, it is wise to inspect these buildings for gasoline fumes and advise the oc-

cupants to discharge water into their floor drains to assure having adequate water in the "trap." This will close off a drain and lock the fumes out of a house.

Both a powder and a liquid are available for use on gasoline to reduce the fire danger. The powder is spread on the gasoline and then flushed with water. The liquid is sprayed over the gasoline and then flushed away. Either of these materials will make a nonflammable emulsion that is easily flushed away.

Glass—Broken glass, in most cases, presents no special hazard in having it removed from the highway but, as in many other highway situations, a constant watch for approaching vehicles must be maintained. A reasonable signal, such as those previously mentioned, should be given in advance to stop or slow traffic to prevent injury or possible death to members of the clean-up crew.

Blood—Removing blood from the highway is a simple operation when done by flushing. Difficulty may arise, however, when a "weak-stomached person" or an unwanted spectator interferes, trying to get firsthand details about the emergency situation.

Miscellaneous Situations—There are numerous situations that could be described here, such as one where a large milk supply transport truck overturned and spilled the entire contents over the highway. Another is when a farm produce truck was involved in an accident and most of its contents were distributed across the highway. Regardless of the situation there are many factors to be considered, such as the substance involved, where it occurred, and how it can be corrected. Weather conditions also play an active part in deciding on a course of action. During freezing weather a method not involving water may be necessary. But when water is necessary to do the job, a supply of salt, sand or other like substance may be needed to make the area safe for both motorists and pedestrians. This, as previously stated, is not a direct function of the squad but it is the squad's responsibility to request assistance through certain local authorities by stating the need for additional personnel and supplies.

COOPERATION BY PREPLANNING

An emergency medical service will, in many cases, request cooperation from the local police department, county sheriff's office, State Highway Patrol, and/or the highway department. EMS personnel should attend to the emergency as it concerns emergency care and rescue, and let the law enforcement agencies handle the other people and traffic problems.

Emergency medical service supervisors should seek cooperation through preplanning with the local police, county sheriff, State Highway Patrol and the highway department. Each has a definite place and each group should cooperate with the other to develop a plan, before the emergency rather than at the scene of the emergency. To best accomplish the desired cooperation, it is suggested planning be done with top officials of the organizations concerned. At this level, definite agreement can be made which will not be contradicted later. See Figure 1.

HOME SITUATIONS

An EMT must have the ability to handle the relatives and friends of the victim so they will not interfere with the victim's or the EMT's care. This responsibility might be delegated to one member of the service while the others proceed with the care of the victim. Hysterical individuals always create an added problem for the EMTs. This problem is important and in some cases must be eliminated before the EMTs can give attention to the victim. If this problem

is not eliminated, it is very possible to have two victims instead of just one. There is no set rule for EMTs to use in coping with this problem; however, the following situtation will present an example which may be helpful.

EXAMPLE

Husband has heart attack. The wife is hysterical.

PROCEDURE

1. Take wife to another room.

2. Ask her questions, to keep her mind occupied.

   a. Has your husband had these attacks before?

   b. Is he taking medicine? (If so, ask to see it.)

   c. What is his medical background?

The following situation will present an example which may be helpful.

   d. Who is his doctor?

   e. What are his parents' medical backgrounds?

   f. How many children do you have?

   g. How old are they and are they away? (Army, college, etc.)

   h. What is your husband's age?

Little help will be required for the relative who remains calm in the face of an emergency; however, a word of sympathy and encouragement is well worthwhile.

Do not blame or ridicule persons for feeling as they do. Your job is to help them cope with their feelings.

COOPERATION OF THE VICTIM

Obtaining the cooperation of a victim is one of the most critical aspects of prehospital emergency care. It is essential to obtain the full cooperation of the victim before and during treatment. There are exceptions such as in cases of drunkenness, drug abuse, mental disorders or some life-threatening emergencies. Even in these cases the EMT should try to obtain the victim's cooperation.

RELATING TO THE VICTIM

At many emergency scenes a large crowd may gather—especially if the emergency scene is on the road or out in the open, such as an auto accident. The victim may be hurt, confused, frightened and even agitated. Upon arrival at the scene, the EMT is often just "another face" in the crowd. The first step to obtaining the victim's cooperation is to move the crowd away from the victim. The privacy of the victim should be protected, if possible.

Next, stand or kneel close to the victim. Make eye contact and introduce yourself to the victim. Give your name, what agency you represent and reassure the victim of your help. Speak in a calm, normal voice. Above all, **reassure** the victim of your intentions to give emergency care.

Ask the victim's name. Call the victim by name during conversation to insure some confidence. People respond and communicate best when addressed by name. Even ma'am and sir are impersonal and certainly no one reacts well to "Hey, you!"

Do not begin any emergency care without informing the victim what is going to be done and why. Remember, at this time the EMT is a very important person to the victim. The EMT represents help to the victim. The final outcome of the emergency treatment may depend upon the EMT's ability to obtain the confidence and cooperation of the victim and give emergency care.

OPERATIONS AT A CRIME SCENE

The following information should be of help to all emergency medical services. The outlined procedure should be followed at all suspected crime scenes.

Emergency care should not be jeopardized or sacrificed at any time. If there is any thought whatsoever that life may still be present, the care of that patient must take precedence over all other things.

PROTECTING THE SCENE

The scene of any unusual death such as at a fire, accident, explosion, unnatural death, etc., should be treated as a crime scene until proven otherwise. If EMTs arrive ahead of any law officers, they should assume the responsibility of protecting the scene until the arrival of the proper law enforcement agency.

1. The primary object to be guarded may be a body, an automobile, a room, or an entire building.

2. An area around the primary object may also require protection, depending on the type of crime.

Authority should be turned over to the police agency as soon as a representative arrives. If a patient must be transported to a hospital, one EMT could be left at the scene to await the arrival of the police agency.

TYPICAL PROCEDURE

Most crime scene investigations follow the same general pattern. The example treated here is a possible homicide. Parts of this procedure, of course, are not applicable in other types of crime.

The following information should be obtained promptly and transmitted to a police agency.

1. Name of deceased, if possible.

2. Exact address and location of the body.

3. Telephone number from where the EMT is calling or can be reached.

4. Apparent cause and time of death, if known.

5. What assistance, if any, is needed.

Duties of the first EMT at the scene are as follows.

1. If the victim must be moved for emergency care, mark in some manner an outline of the body.

2. KEEP THE SCENE INTACT—AS IS. Never touch, change, or alter anything until investigators arrive.

3. Get the names and addresses of witnesses and persons at the scene.

4. Get the name and address of the person who summoned the EMS.

5. Note the weather condition at the time of your arrival.

6. Note the exact position of the body and the condition of the victim's clothing.

7. Note the condition of and any objects in the victim's hands.

8. Note the size and condition of bloodstains, if any.

9. If a weapon is found **do not** touch it. Push it aside or pick it up with a cloth. The weapon should be touched only in the most extreme emergency.

10. All persons found on the scene should be detained for examination, and no unauthorized persons should be admitted to the scene.

11. Do not remove a dead body unless so authorized by the coroner or officer in charge of the EMS.

12. At least one EMT should remain with the body at all times until relieved by a police agency.

13. EMTs should not theorize or gossip with citizens about facts of the case. All such information should be given to investigating officers.

14. Note the time of arrival at scene and the names of EMS officers present.

RECORDS

All pertinent information should be kept on the report at EMS headquarters. It may be subpoenaed later as evidence.

ACTION EVALUATION CONFERENCE

OBJECTIVES

Upon completion of the following chapter, you will be able to:

—describe procedures to evaluate the emergency medical services operation in a given emergency.

INTRODUCTION

An action evaluation conference is an evaluation of what has taken place during the course of an emergency. It will point out what can be done in the future to expedite procedures and achieve a more efficient operation.

A definite pattern for scheduling an AEC cannot be established for all emergency medical units, as methods of operation within each department may differ.

WHY CONDUCT AN AEC?

In emergency medical work, a second chance to save a life is never guaranteed. However, an evaluation of past performance often yields information that will make the handling of future problems more efficient. Emergencies are not always routine, and EMS procedures cannot always be spelled out in detail, in advance. If, during an emergency, something happens for which the EMT has not been prepared, do not "pass the buck." Rather, welcome constructive criticism, opinions, advice, and ideas. Treat this phase of EMS work as one involving "fact finding", not "fault finding".

Preplanning has been emphasized and referred to may times in this text. A combination of preplanning and AECs are essential to an efficient operation. If an EMS carries out an AEC conscientiously, mistakes made in the past will be the stepping stones to success in the future.

HOW TO CONDUCT THE CONFERENCE

An AEC must be based on facts, not hearsay. The report on the case in question should always be used. Such a report should indicate action taken from the time the vehicle left the station until it returned to service. A review of this action should form the basis for the conference discussion. As materials are reviewed, new ideas which may be of value on future calls may be introduced for consideration and evaluation.

These discussions **must not** reflect on the judgment of the EMT involved. The officer-in-charge must stress the importance of honest, constructive criticism if the full cooperation of all rescue personnel is to be obtained. The conference must be treated open-mindedly by all concerned.

SCHEDULING A CONFERENCE

The time for conducting an AEC must be arranged in compliance with the rules, regulations and methods of operation of the EMS. In general, however, AECs should be held as soon after the run as practical so the facts will still be fresh in the minds of those who were involved in the emergency. In a paid department, it is usually possible to hold discussions immediately after the run is completed. The informal discussion, which often takes place in both paid and volunteer services while equipment is being checked and cleaned, can be of much value. In paid departments, AECs may be held at the time of the change of shifts. Often, run reports are reviewed by officer personnel going on and off duty.

Some volunteer services have regular meetings where matters of interest and importance are thoroughly discussed. This is an excellent time to conduct the AEC. Thus, personnel not on duty when the emergency took place can be filled in and briefed on the situation; their opinions and ideas can be evaluated.

In setting up a plan for carrying out AEC, the results will justify the efforts expended.

AEC held in conjunction with training sessions are excellent proving grounds for techniques and methods which can be tried and practiced.

RESPONSIBILITY AND PARTICIPATION

The responsibility for AEC rests with the person who is in charge of the EMS or its operation.

The underlying purpose of an AEC is to gain the most benefits for all personnel. At one time, the usual procedure was to include only the officer personnel in a service. Enlisting the coopertion of all personnel creates a feeling of trust and confidence resulting in a mutual net gain to all concerned. The surest way to gain the cooperation of others is to ask for their help. If a satisfactory conclusion or evaluation is to be expected, all personnel involved should have a part. They will be affected by most decisions regarding policy change or the need for training.

ITEMS TO BE EVALUATED

A pattern should be established and followed in conducting such a session. The following items should be covered.

1. Receiving the call
   a. Was there anything unusual about it?
2. Answering the call
   a. Was a different route taken?
   b. Was there an unusual traffic problem?
   c. Is there a better route?
3. On arrival
   a. Were there any unusual circumstances?
4. Care given victim
   a. What?
   b. When?
   c. How?
   d. Reaction of victim?
   e. Results of care?
5. Equipment
   a. What equipment was used?
   b. Was equipment in place?
   c. Was it in good working order?

6. Control of family and/or public
   a. Outstanding difficulties
   b. Action taken to handle difficulties
7. Medical assistance
   a. Was physician called?
   b. Family or other physician?
   c. Success or failure in obtaining a physician
8. Transportation
   a. Problems encountered
9. Hospital
   a. Condition of victim
   b. Problems encountered at hospital
10. Law enforcement agencies
   a. Were they notified?
   b. Were there any problems with officers?
11. Actions that merit special praise
   a. Were there any regular personnel (medical, hospital, police) who made any extra or special effort to help the EMT in meeting the emergency?
   b. Did the EMS receive special help from a utility company, heavy equipment operator, etc.?
   c. Have any such personnel been thanked for their special cooperation?

NOTE: It is highly recommended that physicians and/or emergency department nurse be included in the Action Evaluation Conference.

1. They can provide follow-up information on the actual injuries or illness of selected patients cared for and transported by the EMTs.

2. They can provide medical viewpoints on the care given the victim by the EMTs and either reinforce good care given or suggest areas where more training is needed.

Available EMS Publications

For ordering and pricing information contact:
Vocational Instructional Materials Laboratory
The Ohio State University
154 W. Twelfth Avenue
Columbus, Ohio 43210
Phone (614) 422-5001

Emergency Victim Care—Student Manual (EVCM)
Emergency Victim Care—Instructor Manual (EVCIM)
Emergency Victim Care—Workbook (EVWB)
EMS Binder—2½" Three-ring binder (EMTB)
Advanced EMT Instructor Manual (EVAIM)
EMS Slide/Tape Series
—Bleeding Control — 42 slides (EMST-1)
—CPR — 72 slides (EMST-2)
—Extrication — 79 slides (EMST-3)
—Fractures — 139 slides (EMST-4)
—Moving and Handling — 111 slides (EMST-5)
—Proper Examination — 68 slides (EMST-6)
—Vital Signs — 28 slides (EMST-7)
—Wounds and Bandaging — 79 slides (EMST-8)
—Anatomy and Physiology (EMST-9)
Victim Rescue Manual—Student Manual
Victim Rescue Manual—Instructor Manual
River Rescue Manual—Student Manual
River Rescue Manual—Instructor Manual
Farm Accident Rescue Manual